AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-55 (Canceled)

56. (New) An intermediate for the preparation of a compound having the structure:

wherein g is 1, 2, 3 or 4;

L is $CR_{L1}R_{L2}$, S, O or NR_{L3} , wherein each occurrence of R_{L1} , R_{L2} and R_{L3} is independently hydrogen or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

each occurrence of R_{G1} , R_{M1} and R_{M2} is each independently hydrogen or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; and

wherein any two adjacent R_{L1} , R_{L2} , R_{L3} , R_{G1} , R_{M1} or R_{M2} groups, taken together, form a substituted or unsubstituted alicyclic or heteroalicyclic moiety containing 3-6 atoms or an aryl or heteroaryl moiety;

 R_2 is hydrogen, -(C=O) R_C or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; wherein each occurrence of R_C is independently hydrogen, OH, ORD, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; wherein R_D is an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

 R_6 is hydrogen, -(C=O) R_E or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, wherein each occurrence of R_E is independently hydrogen, OH, OR_F , or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; wherein R_F is an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

Q is $OR^{Q'}$, $SR^{Q'}$, $NR^{Q'}R^{Q''}$, N_3 , =N-OH, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; wherein $R^{Q'}$ and $R^{Q''}$ are each independently

Page 2 of 10

U.S.S.N. 10/667,864 3795490v1

Attorney Docket No.: 2003946-0057 Client Reference: HEAT/CIP hydrogen, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, or $R^{Q'}$ and $R^{Q''}$, taken together with the nitrogen atom to which they are attached, may form an alicyclic, heteroalicyclic, alicyclic(aryl), heteroalicyclic(aryl), alicyclic(heteroaryl) or heteroalicyclic(heteroaryl) moiety, or an aryl or heteroaryl moiety; and

 R_{10a} is hydrogen, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

wherein said intermediate has the following structure:

57. (New) The intermediate of claim 56 having the structure:

58. (New) An intermediate for the preparation of a compound having the structure:

wherein g is 1, 2, 3 or 4;

L is $CR_{L1}R_{L2}$, S, O or NR_{L3} , wherein each occurrence of R_{L1} , R_{L2} and R_{L3} is independently hydrogen or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

each occurrence of R_{G1} , R_{M1} and R_{M2} is each independently hydrogen or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; and

wherein any two adjacent R_{L1} , R_{L2} , R_{L3} , R_{G1} , R_{M1} or R_{M2} groups, taken together, form a substituted or unsubstituted alicyclic or heteroalicyclic moiety containing 3-6 atoms or an aryl or heteroaryl moiety;

R₂ is hydrogen, -(C=O)R_C or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; wherein each occurrence of R_C is independently hydrogen, OH, OR_D, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; wherein R_D is an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

 R_6 is hydrogen, -(C=O) R_E or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, wherein each occurrence of R_E is independently hydrogen, OH, OR_F , or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; wherein R_F is an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

Q is OR^{Q'}, SR^{Q'}, NR^{Q'}R^{Q''}, N₃, =N-OH, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; wherein R^{Q'} and R^{Q''} are each independently hydrogen, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, or R^{Q'} and R^{Q''}, taken together with the nitrogen atom to which they are attached, may form an alicyclic, heteroalicyclic, alicyclic(aryl), heteroalicyclic(aryl), alicyclic(heteroaryl) or heteroalicyclic(heteroaryl) moiety, or an aryl or heteroaryl moiety; and

 R_{10a} is hydrogen, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

wherein said intermediate has the following structure:

wherein R^{x1} and R^{x2} are independently hydrogen, aliphatic, heteroaliphatic, aryl or heteroaryl.

59. (New) The intermediate of claim 58 having the structure:

60. (New) The intermediate of claim 58 or 59 wherein R^{x1} and R^{x2} are independently hydrogen, alkyl or aryl.

- 61. (New) The intermediate of claim 58 or 59 wherein R^{x1} and R^{x2} are each hydrogen.
- 62. (New) An intermediate for the preparation of a compound having the structure:

wherein g is 1, 2, 3 or 4;

L is $CR_{L1}R_{L2}$, S, O or NR_{L3} , wherein each occurrence of R_{L1} , R_{L2} and R_{L3} is independently hydrogen or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

each occurrence of R_{G1} , R_{M1} and R_{M2} is each independently hydrogen or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; and

wherein any two adjacent R_{L1} , R_{L2} , R_{L3} , R_{G1} , R_{M1} or R_{M2} groups, taken together, form a substituted or unsubstituted alicyclic or heteroalicyclic moiety containing 3-6 atoms or an aryl or heteroaryl moiety;

 R_2 is hydrogen, -(C=O) R_C or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; wherein each occurrence of R_C is independently hydrogen, OH, ORD, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; wherein R_D is an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

R₆ is hydrogen, -(C=O)R_E or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, wherein each occurrence of R_E is independently hydrogen, OH, OR_F, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, wherein R_F is an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

Q is $OR^{Q'}$, $SR^{Q'}$, $NR^{Q'}R^{Q''}$, N_3 , =N-OH, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; wherein $R^{Q'}$ and $R^{Q''}$ are each independently hydrogen, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, or $R^{Q'}$ and $R^{Q''}$, taken together with the nitrogen atom to which they are attached, may form an alicyclic, heteroalicyclic, alicyclic(aryl), heteroalicyclic(aryl), alicyclic(heteroaryl) or heteroalicyclic(heteroaryl) moiety, or an aryl or heteroaryl moiety; and

 R_{10a} is hydrogen, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety;

wherein said intermediate has the following structure:

- 63. (New) The intermediate of claim 56, 57, 58, 59 or 62 wherein R₂ is hydrogen, or a substituted or unsubstituted, linear or branched, cyclic or acyclic, or saturated or unsaturated lower alkyl, heteroalkyl, -alkyl(aryl) or acyl moiety.
- 64. (New) The intermediate of claim 63 wherein R₂ is methyl, ethyl, propyl, butyl, pentyl, tert-butyl, i-propyl, -CH(CH₃)Et, -CH(CH₃)CH₂CH₂CH₃, -CH(CH₃)CH₂CH₂CH₂CH₂CH₃, -CH₂CH(CH₃)₂, -CH(CH₃)CH(CH₃)₂, -C(CH₃)₂Et, -CH(CH₃)cyclobutyl, -CH(Et)₂, -C(CH₃)₂C≡CH, cyclohexyl, cyclopentyl, cyclobutyl or cyclopropyl.
- 65. (New) The intermediate of claim 63 wherein R₂ is methyl, ethyl, propyl or *i*-propyl.
- 66. (New) The intermediate of claim 56, 57, 58, 59 or 62 wherein R₆ is methyl, ethyl, propyl, butyl, pentyl, *tert*-butyl, *i*-propyl, -CH(CH₃)CH₂CH₃, -CH₂CH(CH₃)₂, cyclohexyl, cyclopentyl, cyclobutyl or cyclopropyl; and R₂ is methyl, ethyl, propyl, butyl, pentyl, *tert*-butyl, *i*-propyl, -CH(CH₃)Et, -CH(CH₃)CH₂CH₂CH₃, -CH(CH₃)CH₂CH₂CH₂CH₃, -CH₂CH(CH₃)₂, -CH(CH₃)CH(CH₃)₂, -C(CH₃)₂Et, -CH(CH₃)cyclobutyl, -CH(Et)₂, -C(CH₃)₂C≡CH, cyclohexyl, cyclopentyl, cyclobutyl or cyclopropyl.
- 67. (New) The intermediate of claim 66 wherein R₆ is tert-butyl.
- 68. (New) The intermediate of claim 56, 57, 58, 59 or 62 wherein R_{GI} is hydrogen, substituted or unsubstituted, linear or branched, cyclic or acyclic, or saturated or unsaturated lower alkyl or substituted or unsubstituted phenyl.

Page 6 of 10

- 69. (New) The intermediate of claim 68 wherein R_{G1} is hydrogen, methyl or phenyl.
- 70. (New) The intermediate of claim 68 wherein R_{G1} is hydrogen.
- 71. (New) The intermediate of claim 56, 57, 58, 59 or 62 wherein R_{M1} and R_{M2} are each independently hydrogen, hydroxyl, a substituted or unsubstituted, linear or branched, cyclic or acyclic, or saturated or unsaturated lower alkyl moiety; a substituted or unsubstituted phenyl moiety, or R_{M2} is absent when R_{M1} and the substitutents on L, taken together, form a substituted or unsubstituted aryl or heteroaryl moiety.
- 72. (New) The intermediate of claim 71 wherein R_{M1} and R_{M2} are each hydrogen.
- 73. (New) The intermediate of claim 56, 57, 58, 59 or 62 wherein g is 1 or 2.
- 74. (New) The intermediate of claim 56, 57, 58, 59 or 62 wherein L is CR_{L1}R_{L2} wherein R_{L1} and R_{L2} are each independently hydrogen, substituted or unsubstituted, linear or branched, cyclic or acyclic, or saturated or unsubstituted lower alkyl or substituted or unsubstituted phenyl.
- 75. (New) The intermediate of claim 74 wherein L is CH₂.
- 76. (New) The intermediate of claim 56, 57, 58, 59 or 62 wherein R_{10a} is hydrogen or substituted or unsubstituted, linear or branched, cyclic or acyclic, saturated or unsaturated lower alkyl.
- 77. (New) The intermediate of claim 76 wherein R_{10a} is methyl.
- 78. (New) The intermediate of claim 56, 57, 58, 59 or 62 wherein Q is OR^{Q'}, SR^{Q'}, NR^{Q'}R^{Q''}, N₃, =N-OH, or a moiety selected from the group consisting of:

Page 7 of 10

$$(R^{Q1})_{s} \qquad (R^{Q1})_{s} \qquad (R^{Q1})_{s} \qquad (R^{Q2})_{t} \qquad (R^{Q1})_{s} \qquad (R^{Q2})_{t} \qquad (R^{Q1})_{s} \qquad (R^{Q2})_{t} \qquad (R^{Q1})_{s} \qquad (R^{Q1})_{s} \qquad (R^{Q2})_{t} \qquad (R^{Q1})_{s} \qquad (R^{$$

wherein each occurrence of r is 0, 1 or 2; s and t are independently an integer from 0-8; X is O, S, or NR^K; each occurrence of R^{Q1} and R^{Q2} is independently hydrogen, halogen, -CN, -S(O)_hR^J, -NO₂, -COR^J, -CO₂R^J, -NR^JCOR^J, -NR^JCO₂R^J, -CONR^JR^J, -CO(NOR^J)R^J, aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, or -Z₁R^J; wherein h is 1 or 2; and Z₁ is independently -O-, -S-, NR^K, -C(O)-, wherein each occurrence of R^J and R^K is independently hydrogen, COR^L, COOR^L, CONR^LR^M, -NR^LR^M, -S(O)₂R^L, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety, and wherein each occurrence of R^L and R^M is independently hydrogen, or an aliphatic, alicyclic, heteroaliphatic, heteroalicyclic, aryl or heteroaryl moiety; and R^Q and R^Q are independently hydrogen, or a substituted or unsubstituted, linear or branched, cyclic or acyclic alkyl or heteroalkyl moiety, or a substituted or unsubstituted aryl or heteroaryl moiety; or R^{Q'} and R^{Q''}, taken together with the nitrogen atom to which they are attached, form a substituted or unsubstituted heterocyclic, aryl or heteroaryl moiety.

79. (New) The intermediate of claim 78 wherein Q is ORQ, wherein RQ is hydrogen, or a substituted or unsubstituted, linear or branched, cyclic or acyclic alkyl or heteroalkyl moiety, or a substituted or unsubstituted aryl or heteroaryl moiety.

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